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**PETITION FOR REVIVAL OF AN INTERNATIONAL APPLICATION FOR PATENT  
DESIGNATING THE U.S. ABANDONED UNINTENTIONALLY UNDER 37 CFR 1.137(b)**

Docket Number  
(Optional)  
KIRN:002US

First Named Inventor: David Kim

International (PCT) Application No.: PCT/US03/25141

U.S. Application No.: 10/524,932  
(if known)

Filed: 02/14/2005

Title: METHODS AND COMPOSITIONS CONCERNING POXVIRUSES AND CANCER

Attention: PCT Legal Staff  
Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

The above-identified application became abandoned as to the United States because the fees and documents required by 35 U.S.C. 371(c) were not filed prior to the expiration of the time set in 37 CFR 1.495(b) or (c) as applicable. The date of abandonment is the day after the date on which the 35 U.S.C. 371(c) requirements were due. See 37 CFR 1.495(h).

**APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION**

NOTE: A grantable petition requires the following items:

- (1) Petition fee
- (2) Proper reply
- (3) Terminal disclaimer with disclaimer fee which is required for all international applications having an international filing date before June 8, 1995; and
- (4) Statement that the entire delay was unintentional.

**1. Petition fee**

☒ Small entity - fee \$ 750.00 (37 CFR 1.17(m)). Applicant claims small entity status.  
See 37 CFR 1.27.

☐ Other than small entity - fee \$ \_\_\_\_\_ (37 CFR 1.17(m))

08/30/2005 GFREY1 00000126 10524932

**2. Proper reply**

05 FC:2453

750.00 0P

**A. The proper reply (the missing 35 U.S.C. 371(c) requirement(s)) in the form of**

Trans. to the US/DO/EO Under Sec. 371 Submitting the Basic National Filing (identify type of reply):  
Fee, Examination Fee and Search Fee.

☐ has been filed previously on \_\_\_\_\_

☒ is enclosed herewith.

[Page 1 of 2]

This collection of information is required by 37 CFR 1.137(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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3. Terminal disclaimer with disclaimer fee

☒ Since this international application has an international filing date on or after June 8, 1995, no terminal disclaimer is required.

☐ A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of \$ \_\_\_\_\_ for a small entity or \$ \_\_\_\_\_ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

4. Statement. The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional.

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

	08/23/05
Signature	Date
Gina N. Shishima	45,104
Typed or Printed Name	Registration Number, if applicable
Fulbright & Jaworski, LLP, 600 Congress Ave., Suite 2400,	512-536-3081
Address	Telephone Number
Austin, Texas 78701	
Address	

Enclosures: ☒ Response  
☒ Fee Payment  
☐ Terminal Disclaimer  
☒ Other (please identify):  
Postcard

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<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER KIRN:002IS
INTERNATIONAL APPLICATION NO. PCT/US03/25141	INTERNATIONAL FILING DATE 08/11/2003	U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/524,932
TITLE OF INVENTION METHODS AND COMPOSITIONS CONCERNING POXVIRUSES AND CANCER		
APPLICANT(S) FOR DO/EO/US David Kim		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
1. <input type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.		
2. <input checked="" type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.		
3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.		
4. <input type="checkbox"/> The US has been elected (Article 31).		
5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ul>		
6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ul>		
7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ul>		
8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).		
9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).		
10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).		
<b>Items 11 to 20 below concern document(s) or information included:</b>		
11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.		
12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.		
13. <input type="checkbox"/> A preliminary amendment.		
14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.		
15. <input type="checkbox"/> A substitute specification.		
16. <input type="checkbox"/> A power of attorney and/or change of address letter.		
17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.		
18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).		
19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).		
20. <input type="checkbox"/> Other items or information:		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS\* SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/524,932		INTERNATIONAL APPLICATION NO. PCT/US03/25141		ATTORNEY'S DOCKET NUMBER KIRN:002IS	
The following fees have been submitted				CALCULATIONS	PTO USE ONLY
21. <input checked="" type="checkbox"/> Basic national fee..... \$300				\$ 300.00	
22. <input type="checkbox"/> Examination fee If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)..... \$100 All other situations..... \$200				\$ 200.00	
23. <input type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100 International Search Report prepared and provided to the Office..... \$400 All other situations..... \$500				\$ 500.00	
<b>TOTAL OF 21, 22 and 23 =</b>				\$ 1,000.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
122 - 100 =	22 /50 =	50	x \$250	\$ 250.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(h)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	120 - 20 =	100	x \$ 50	\$	
Independent claims	- 3 =		x \$200	\$	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360	\$	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$ 1,250.00	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.				625.00	
<b>SUBTOTAL =</b>				\$ 625.00	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$	
<b>TOTAL NATIONAL FEE =</b>				\$	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	
<b>TOTAL FEES ENCLOSED =</b>				\$ 625.00	
				Amount to be refunded:	\$
				Amount to be charged:	\$
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$ 625.00 to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-1212. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>					
<p><b>NOTE:</b> Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.</p>					
SEND ALL CORRESPONDENCE TO:					
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">CUSTOMER NO. 32425</div> <div style="border: 1px solid black; padding: 5px;">EXPRESS MAIL NO: EV 448720585US MAILING DATE: August 22, 2005</div> </div> <div style="width: 50%; text-align: right;"> <div style="margin-bottom: 5px;">            SIGNATURE         </div> <div style="margin-bottom: 5px;">Gina N. Shishima</div> <div style="margin-bottom: 5px;">NAME</div> <div style="margin-bottom: 5px;">45,104</div> <div>REGISTRATION NUMBER</div> </div> </div>					

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/25141

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12Q 1/70; C12N 7/00

US CL : 435/235.1, 5

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 435/235.1, 5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
PUBMED, DERWENT

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SROLLER. V. Effect of IFN-gamma receptor gene deletion on vaccinia virus virulence Arch. Virol. 2001, Vol. 146. pages 239-249	1-5, 7, 8
X	ALCANI. A. The Vaccinia Virus Soluble Alpha/Beta Interferon (IFN) Receptor Binds to the Cell Surface and Protects Cells from the Antiviral Effects of IFN J. Virol. December 2000, Vol. 74. No. 23, pages 11230-11239.	1-4, 7, 8, 37
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A		11, 13-21, 23-25, 28-36, 50-101
X	KETTLE. S. Vaccinia virus serpin B12R (SPI-2) inhibits interleukin1-beta converting enzyme and protects virus-infected cells from TNF- and Fas-mediated apoptosis, but does not prevent IL-1-beta induced fever J. Gen.Vir. 1997, Vol. 78. pages 677-685.	1-4, 6, 7, 9, 10, 12, 22, 26, 27, 37-40
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A		41-49
X	MULLEN. T. Viral Oncolysis 2002, The Oncol. Vol. 7. pages 106-119.	110, 111, 113
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A		50-101, 108, 109
X	MCCART. J.A. Systemic Cancer Therapy with a Tumor-selective Vaccinia Virus Mutant Lacking Thymidine Kinase and Vaccinia Growth Factor Genes Cancer Res. December 2001, Vol. 61. pages 8751-8757.	110, 111
---		-----
A		50-101, 108, 109

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

25 June 2005 (25.06.2005)

Date of mailing of the international search report

27 JUL 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Timothy M. Brown

Telephone No. (571) 272-1600

# INTERNATIONAL SEARCH REPORT

PCT/US03/25141

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MCCART. J.A. Complex interaction between the replicating oncolytic effect and the enzyme/prodrug effect of vaccinia-mediated tumor regression Gene Th. 2000, Vol. 7. pages 1217-1223.	102, 103, 112, 114
X	VANDERPLASSCHEN. A. Extracellular enveloped vaccinia virus is resistant to complement because of incorporation of host complement control proteins into its envelope Proc. Nat. Acad. Sci. June 1998, vol. 95. pages 7544-7549.	115-117
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A		104-107, 118-120